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Cooperative
**ECONOMIC INSECT
REPORT**

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DEPARTMENT OF AGRICULTURE
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BUREAU OF
Entomology and Plant Quarantine
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Cotton, Crop and Garden Insect
Investigations
WASHINGTON, D. C.

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PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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Washington 25, D. C.

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

GRASSHOPPER outbreak in Nebraska most severe since the 1930's. Crop damage increasing in north central Kansas. Several other States report infestations of concern. (p. 615). Second-brood EUROPEAN CORN BORER moths active over wide areas. (p. 616). FALL ARMYWORM damage to corn and sorghum continues. Populations higher than last year in Kansas and may be serious later in Illinois. (p. 616).

CORN LEAF APHID damaging sorghum in South Dakota, Kansas and Missouri and barley in Utah. Rapid buildup in Iowa. (p. 617). SPOTTED ALFALFA APHID increasing in south central Kansas, southern Oklahoma and southern Nevada. Moderate to heavy in small areas of Virginia, Georgia, Alabama, Louisiana, Utah, Arizona and California. (p. 618).

SALT-MARSH CATERPILLAR numerous in southern Louisiana. (p. 619). About 50 percent WHEAT STEM SAWFLY infestations in areas of North Dakota. (p. 619). POTATO LEAFHOPPER more abundant in alfalfa than for several years in Wisconsin. (p. 619). Damage in central Ohio. (p. 632). WEBWORM damage to alfalfa continues in Arkansas, Missouri and Oklahoma. (p. 620).

CODLING MOTH causing more trouble than usual in some northern Virginia orchards, moderate to serious in several Wisconsin counties. (p. 621). ORCHARD MITES threatening in Massachusetts, increases reported in other areas. (p. 621).

POTATO PSYLLID continues most critical pest of potatoes and tomatoes in areas of Colorado. (p. 623). SQUASH BUGS increasing in Rhode Island, abundant in Iowa and southern Utah. (p. 623). ONION MAGGOT damage serious some areas of Wisconsin. (p. 623). PEA APHID heaviest in Palouse area of Washington since 1954. Increased in late peas in Wisconsin. (p. 624).

BOLL WEEVIL situation continues serious in the Carolinas and Tennessee. High square infestations in these States and in Georgia, Alabama and Louisiana. (p. 625). BOLLWORMS increasing in areas of Missouri, Tennessee, Arkansas, Arizona and California. (p. 625). LYGUS BUGS building up in cotton areas of Arizona and California. (p. 627).

HORNWORM moths increasing in tobacco areas of Maryland and Virginia. (p. 627).

Heavy populations of WHITE-PINE WEEVIL in northern Wisconsin. (p. 627).

SCREW-WORM activity increased in several Alabama counties. Infestations in Spalding County, Georgia and Custer County, Oklahoma. (p. 629).

CORRECTIONS. (p. 630). ADDITIONAL NOTES. (p. 632).

Reports in this issue are for the week ending July 26 unless otherwise designated.

WEATHER OF THE WEEK ENDING JULY 29

A cold front, in advance of a Polar air mass moving in over the eastern third of the country early in the period, brought some moisture to the Atlantic coastal drought area. Although heavy showers were reported locally, relief was mainly temporary and the situation remains critical in many sections. For the 16-week period ending July 28, precipitation was less than 50 percent of normal along the coast from just north of Richmond, Va., to south of Boston, Mass., and less than 75 percent of normal throughout most of Virginia, and east of a line extending from south-central West Virginia to south-central Maine. Weekend showers brought additional rain to the New England area, but again beneficial amounts were local. For example, South Bridgeport, Mass., received over 3 inches while nearby New Bedford, which has had less than 16 percent of normal since April 10, received none.

As dry weather continued in the Far West, forest fire danger was reported exceptionally high in northern California, Idaho, and Montana. Precipitation amounts were light or none, except for local heavy showers, west of the Divide, and also in the northern Plains and western Lakes region, and over most of western Texas. Heavy to moderate totals were observed in New Mexico, the central Plains States, and most of the country east of the Mississippi, excluding mainly the southern Appalachian region and the northeastern coastal areas. Totals for the week were in excess of 6 inches in local areas of west-central Florida, southeastern Louisiana, and in the vicinity of Dodge City, Kans. Savannah, Ga., reported 8.47 inches for the week and 5.38 inches for the 24 hours ending Sunday morning. On the afternoon of the 26th, 5.50 inches fell at Akron, Colo., in 3 hours, while in southwestern portions of the State on the same day heavy showers caused local flooding along streams in the San Juan Basin. Flooding also occurred in Indiana as a result of 4 to 5 inch rains which fell at Lafayette and Fowler, in El Paso, Tex., where over 2 inches fell during the week, and at Fowler, Kans.

Maximum temperatures in the eastern third of the Nation were generally less than 90° from Wednesday through Sunday, and minima dropped into the 40's on the 23rd and 24th in Wisconsin with Cranmoor in the cranberry bogs observing a low of 33° on the latter date. In contrast, temperatures reached the upper 90's and lower 100's on Thursday through Saturday in the extreme north just west of the Divide. At the same time southern Arizona and New Mexico were experiencing somewhat cooler than normal weather with maximum readings in the mid 80's and upper 70's.

Weekly temperatures averaged below normal over most of the Nation, but were above normal along the California coast, in southern portions of the Gulf States, and in the northern Plains. However, they were mainly within a few degrees of seasonal averages except in eastern Montana and western North Dakota where departures averaged 6 to 8° above, and in southern Nevada and along the Utah-Colorado border where they were 6 to 7° below normal.

(Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - CALIFORNIA - Damage to grain and other crops in 25 counties during June. Melanoplus devastator, M. differentialis, and Oedaleonotus enigma principal species involved. (Cal. Coop. Rept.). WYOMING - Infestations developed about as expected. Control started June 24 in Converse County. MONTANA - Control applied on over 500,000 acres in 5 counties. (PPC, Western Region, June Rept.). UTAH - In Box Elder County 7,618 acres sprayed. Counts of 100 to 200 per square yard in parts of Sanpete, Sevier and Wayne Counties. Range outbreak over about 27,000 acres. (Thornley, Knowlton). ARIZONA - Serious infestation of mainly Camnula pellucida in Alpine area, Apache County. Oviposition starting. (Ariz. Coop. Rept.). IDAHO - Control initiated on 19,522 acres in Lemhi County and 4,960 in Custer County. A small, intense infestation, 1,000 acres with 15-150 per square yard, moving into crop areas from desert range west of Artesian in Twin Falls County. Severe damage on potato and wheat field margins. Dominant species Oedaleonotus enigma, M. packardii and M. bivittatus. (Evans). OKLAHOMA - Very light throughout State; 0-2 per square yard on range in southern and southwestern areas. (Coppock, Stiles). NEBRASKA - Infestation of Melanoplus spp. most extensive and severe since the "30's". M. bivittatus and M. differentialis about 30 to 40 percent adults. Moving into center of corn fields. Some corn and alfalfa fields already ruined. Counts of 80-90 per square yard in margins and 10-15 in fields of corn. Populations in alfalfa ranging 15-90 in margins and 15-25 per square yard in the fields. Controls underway. In Keith and Garden Counties 99,940 acres of rangeland sprayed and over 20,000 acres of cropland sprayed in Fillmore County. (Bell, Andersen). KANSAS - Activity and crop damage increasing in most areas of north central and central counties. Rather widespread and severe stripping of alfalfa and corn where control not applied in these counties. In some alfalfa and corn fields counts of 18 to 27 per square yard. M. differentialis, M. bivittatus and M. mexicanus dominant crop species. (Matthew, Somsen). Damage continues in localized areas of west central counties where control not applied. Destructive to some truck garden crops in irrigated areas. Margin and roadside counts of 6-25 per square yard and grasshoppers moving out into cropland. Dominant species M. mexicanus and Aeoloplides turnbulli (Gates). SOUTH DAKOTA - Fifteen per square yard in most alfalfa fields of southeast and east central regions; M. femur-rubrum and M. mexicanus dominant species. Considerable damage in margins of corn in one locality of Clay County. (Hantsbarger). MINNESOTA - Of 11 counties checked, counts per square yard ranged from 4-5 to 90-100. In general M. femur-rubrum mostly in first to third instars. Heavy hatch may occur in alfalfa fields. (Minn. Ins. Rept.). WISCONSIN - Main hatch of M. femur-rubrum appears uniform in south, west and central areas. In alfalfa-red clover fields in 4 counties nymphs average 4-27 per square yard. Moderate to heavy grasshopper populations in 9 counties. (Wis. Ins. Surv.). ILLINOIS - Still abundant in some hay crop fields and along fencerows, roadsides and ditch banks. (Ill. Ins. Surv.). VIRGINIA - Stripped leaves on 13 acres of red clover in Hanover County. (Sanders, Willey). DELAWARE - Melanoplus spp. nymphs numerous in alfalfa at some places, New Castle County. Injuring corn Kent and Sussex Counties. (Milliron, Conrad).

ARMYWORM (Pseudaletia unipuncta) - COLORADO - Damage in small grains in Otero and Crowley Counties. In a few cases numbers were very high, with evidence of migration. (Exp. Sta.). NEBRASKA - Ranging from 46 to 58 per square foot (July 20) under shocks of barley and oats in Garden County. Out in the open, counts ranged from 6 to 12 per square foot. (Andersen).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - KANSAS - Light infestations in corn in south central counties where infestations ranged less than 8 percent. (Matthew, Somsen).

YELLOW-STRIPED ARMYWORMS (Prodenia sp.) - UTAH - Difficult to control over several hundred acres of alfalfa intended for seed in eastern Millard County. (Rickenbach, Knowlton).

EUROPEAN CORN BORER (Pyrausta nubilalis) - NEW JERSEY - Second-brood moths, Trenton July 10. (Ins.-Dis. News.). MARYLAND - Damage to early sweet corn heavy in Carroll County. Second-generation oviposition increasing in Frederick County with counts of 16 egg masses per 100 plants in one field. Egg deposition on Eastern Shore light. (U. Md., Ent. Dept.). RHODE ISLAND - Damage to corn increasing. Stalk and cob boring in addition to tassel damage. In some cases sweet corn abandoned with no control applied. (Stoner). PENNSYLVANIA - Generally heavier on corn than last year in Erie, Butler and Beaver Counties. (Adams). ILLINOIS - Pupation of first generation expected to be complete in early August from East St. Louis northward to about Jacksonville. About 50 percent of moths emerged in this vicinity. Moths emerging in eastern, central and western areas. Pupation well started in northern area. (Ill. Ins. Rept.). WISCONSIN - First brood larvae numerous enough in few advanced corn fields to warrant control. Larvae nearly mature and pupation expected around first of August. (Wis. Ins. Surv.). ALABAMA - Second generation infesting grain sorghum on Sand Mountain. (Eden). MISSOURI - Emergence complete in southeast. Egg mass counts of 0-40 per 100 plants. Pupation complete and moth emergence 90 to 95 percent complete in central area. Counts of 0-12 egg masses per 100 plants. Some hatching underway. (Kyd, Thomas). MINNESOTA - Percent of plants infested and larvae per 100 plants: south central 47, 140; southwest 64, 227; central 40, 160; and west central 68, 371. Larval to pupal stages found. (Minn. Ins. Rept.). IOWA - Second-brood moths flying and new eggs found July 20 at Ankeny. Counts of 56.8 larvae per 100 plants in Boone County and 288 in northwest area. At Ankeny 45 percent pupation has occurred. In Boone County 65 percent larvae in fifth instar. Peak of second-brood moth emergence expected August 4-11. Severe on sweet corn. (Iowa Ins. Inf.). NEBRASKA - In Hall and Cuming Counties average percent infestation was 13.75 and 17.25. (Hill).

CORN EARWORM (Heliothis zea) - CALIFORNIA - Heavy on corn in San Bernardino County, light in Yolo County, medium in Orange County. (Cal. Coop. Rept., June). UTAH - Moderately severe on sweet corn, Washington County. Infestation in Cache County averaged 33 percent. (Dorst, Knowlton). In Utah and Salt Lake Counties 50 percent of corn silks containing 1 or 2 eggs each. Control underway at Spanish Fork. (Dorst). OKLAHOMA - Scattered populations in corn, sorghums, alfalfa and peanuts throughout State. (Coppock). KANSAS - Approaching seasonal highs. Some fields in central and south central counties have 40 to 96 percent of ears infested. Associated with fall armyworm in central and south central counties. (Matthew). TEXAS - Light widespread populations on grain sorghum in Kaufman County. (Hawkins). IOWA - Abundant in early sweet corn. (Iowa Ins. Inf.). NORTH CAROLINA - Average of 6.2 eggs per silk on sweet corn in Duplin County. (Farrier). PENNSYLVANIA - Counts of 1-3 per 100 ears in sweet corn, Erie Co. (Adams). ALABAMA - Damaging heads of grain sorghum in Houston County, 3 to 8 per head. (Grimes). Infesting peanuts in Henry County. (Eden). MARYLAND - In Queen Annes County damage to sweet corn ears coming into canneries ranges 7-12 percent. (U. Md., Ent. Dept.). DELAWARE - Damage to silks and ear tips of corn throughout State. (Milliron, Conrad).

FALL ARMYWORM (Laphygma frugiperda) - OKLAHOMA - Damage to young corn and sorghums. Up to 8 per whorl in corn in Garvin County. (Coppock, Stiles). KANSAS - Infestations in whorl of corn and sorghums more abundant than last year and individual fields have higher populations. Light to heavy localized infestations in counties throughout eastern two-thirds of State; 16-75 percent of plants infested in many fields. Larvae beginning to feed in shanks and stalks. (Matthew). ARKANSAS - Damage to whorls heavy in some fields. (Barnes et al.). LOUISIANA - Heavy and damaging over most of State. Young corn in 5 counties in northern area with 90-100 percent of stalks infested. Alfalfa heavily infested in Bossier and Caddo Parishes. (Oliver). ALABAMA - Completely destroyed a 15-acre field of young corn. Two to 6 larvae per plant. (Grimes). Infesting peanuts in Henry County and grain sorghum on Sand Mountain. (Eden). ILLINOIS - Egg masses collected as far north as Carlinville. There may be serious trouble with this pest. (Ill. Ins. Rept.). TENNESSEE - Of the budworms serious in late corn and widespread across the State, L. frugiperda predominated. (Mullett). NORTH CAROLINA - Larvae damaging milo in Iredell County. (Franklin, Farrier).

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - ALABAMA - Moderate to severe damage to young plantings of soybeans throughout Mobile County. (Shotts et al.).

MORMON CRICKET (Anabrus simplex) - WYOMING - Total of 31,375 acres baited with excellent results in Natrona, Crook and Converse Counties. One small band of crickets moved into Natrona, Pine Ridge area after baiting. (PPC, Western Region, June Rept.). UTAH - Appeared in small numbers in Juab County. (Knowlton).

CORN SAP BEETLES - PENNSYLVANIA - Very abundant in ears and in corn borer tunnels, Blair County. (Udine). MARYLAND - Adults and larvae abundant in ears of sweet corn in Queen Annes and Frederick Counties. (U. Md., Ent. Dept.). DELAWARE - Carpophilus lugubris adults common in silks of corn generally. Larvae common in advanced ears of sweet corn, statewide. (Milliron, Conrad). VIRGINIA - On corn in Loudoun County. (Morris, Brown). NORTH CAROLINA - C. antiquus on milo in Iredell County. (Franklin, Weisman). UTAH - Abundant in sweet corn at Toquerville. (Hughes, Knowlton).

FALSE CHINCH BUGS (Nysius spp.) - UTAH - Population very high in Washington and St. George grain stubble fields and some alfalfa fields. (Hughes).

JAPANESE BEETLE (Popillia japonica) - RHODE ISLAND - Statewide depredations by adults on a wide range of hosts, particularly on corn silks. Populations seem higher than usual. (Mathewson, Stoner).

SAY STINK BUG (Chlorochroa sayi) - NEVADA - Increasing on wheat in Oroville area. (Bechtel, Gallaway, July 20).

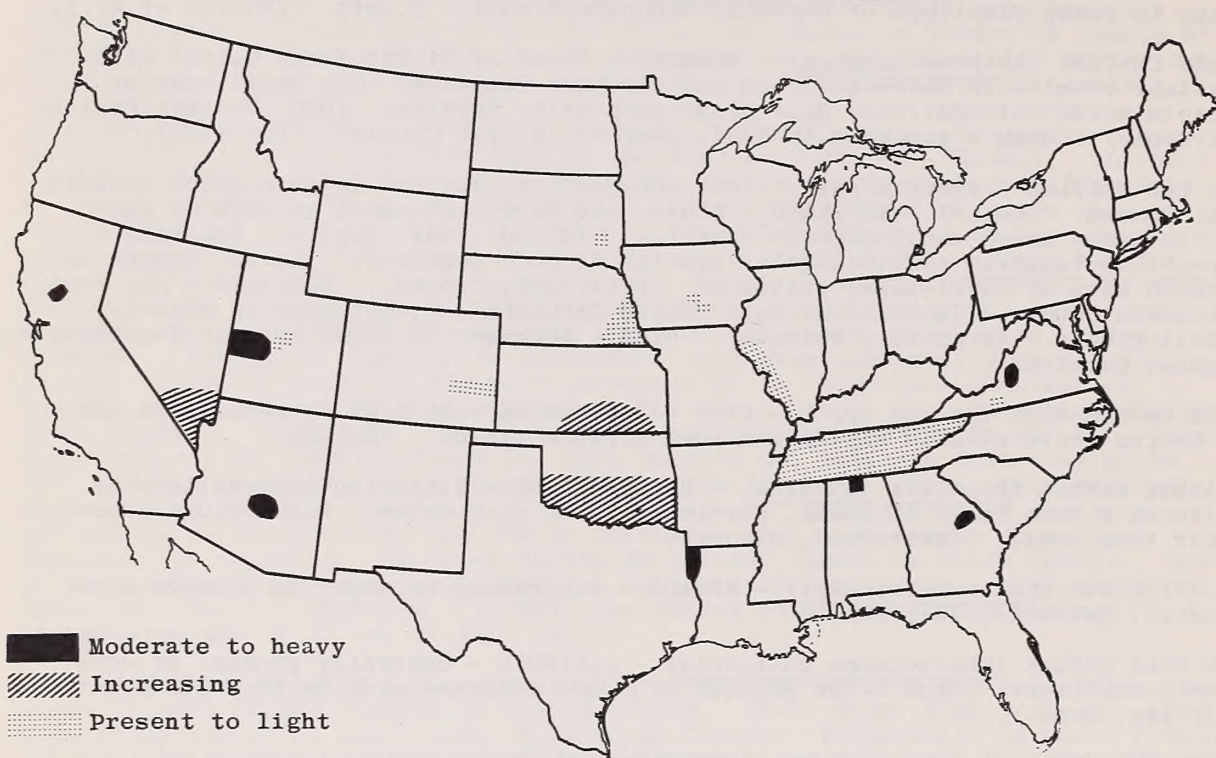
CORN FLEA BEETLE (Chaetocnema pulicaria) - ILLINOIS - Generally present on corn in west-southwest. From 0-100 percent of plants infested with up to 6 per plant. (Ill. Ins. Rept.).

CHINCH BUG (Blissus leucopterus) - MISSOURI - Moderate to heavy damage in scattered fields of corn and grain sorghums in west central and northwest quarter of State. (Kyd, Thomas).

CORN LEAF APHID (Rhopalosiphum maidis) - MAINE - This species in combination with Macrosiphum granarium and R. fitchii increased on untreated oats locally at Presque Isle. Overall numbers small to moderate. (Shands). DELAWARE - Common in tassels and whorls some areas Kent and Sussex Counties. (Milliron, Conrad). MARYLAND - Light on field corn in Wicomico County. (U. Md., Ent. Dept.). INDIANA - Infesting tassels in north central area. (Wilson). WISCONSIN - Large colonies in some corn fields and now commonly found in tassels in many areas. (Wis. Ins. Surv.). KANSAS - Light to heavy in Clark County north to Jewell County and throughout remainder of eastern Kansas. Populations up to several thousand per milo plant. In some fields 25-60 percent of plants with discoloration. (Matthew). IOWA - Building up rapidly in grain sorghum. (Iowa Ins. Inf.). MISSOURI - Light to heavy in whorls of grain sorghums over most of State. Some leaf discoloration in widely scattered fields in west central and northwest areas. In central area 10-76 percent of plants infested with few to several hundred aphids per plant. (Kyd, Thomas). SOUTH DAKOTA - Damaging infestations in several sorghum fields in southeast. (Hantsbarger). OKLAHOMA - Heavy in scattered fields of young broomcorn in Pauls Valley area (thousands per plant). (Coppock, Stiles). UTAH - Many fields of spring barley severely infested in northern area where spreading is occurring and control underway. (Knowlton). NEVADA - Light, spotted infestations on barley, Washoe County. (Bechtel, Gallaway, July 20).

ENGLISH GRAIN APHID (Macrosiphum granarium) - IDAHO - Infestation in northern Idaho on spring grains now in rapid decline. (Gittins). Moderate on spring-seeded cereal crops in several areas of Nez Perce County. (Kambitsch).

Spotted Alfalfa Aphid Situation as Reported July 26



SPOTTED ALFALFA APHID (*Therioaphis (Pterocallidium) maculata*) - VIRGINIA - Eight per sweep in a Floyd County alfalfa field and 300 plus per sweep in 2 Botetourt County fields. (Evans, Morris). ALABAMA - Heavy infestations in Madison County. (Ruffin, July 20). GEORGIA - Total 2500 per 100 sweeps in Hancock County alfalfa fields. (Johnson). TENNESSEE - Low numbers across State. Apparently beginning to build up for fall as last year. (Mullett). UTAH - Now present in Sanpete County. Control necessary in some fields in Millard County. (Knowlton). LOUISIANA - Populations remain moderate to heavy in alfalfa in Bossier and Caddo Parishes. (Oliver). ILLINOIS - No infestations warranting treatment, but aphid has been collected in counties bordering the Mississippi River as far north as Quincy. (Ill. Ins. Rept.). IOWA - Single specimens found in Polk and Marion Counties, bringing to 9 number of counties infested this year. (Iowa Ins. Inf.). SOUTH DAKOTA - Found for first time this year in McCook County, making 15 known infested counties. No evidence of major buildup. (Hantsbarger). NEBRASKA - Remains low; 3 per 100 sweeps in southeast area with scattered areas up to 25 aphids per 100 sweeps. (Andersen, Weekman). KANSAS - Beginning to buildup in alfalfa in south central area, heaviest infestations in Harvey, Reno and Sedgwick Counties with 600-1500 per net sweep in a few fields. Elsewhere counts generally ranged from 1 to 30 aphids per sweep. Predator populations varied as greatly as aphid populations. (Matthew, Somsen). OKLAHOMA - Populations building up in scattered fields in southern half but remain light. (Coppock, Stiles). COLORADO - Only traces in western Prowers, eastern Otero, Bent and Pueblo Counties. (Exp. Sta.). NEVADA - Winged adult collected near Dayton, Lyon County. (Gallaway). Populations increasing in southern area. (Lauderdale, July 20). ARIZONA - High populations in Salt River Valley where not treated. (Ariz. Coop. Rept.). CAL. - Medium to heavy locally in Glenn County. (Cal. Coop. Rept.).

SPIDER MITES - DELAWARE - *Tetranychus atlanticus*, *T. telarius*, and *Tetranychus* sp. occurring in destructive numbers on soybeans in Kent and Sussex Counties. (Milliron, Conrad). MARYLAND - Heavy on soybeans in sections of Wicomico and Caroline Counties.

PEA APHID (Macrosiphum pisi) - NEBRASKA - Building up in Republican Valley, averaging 860 per 100 sweeps. Population very low in eastern counties. (Andersen, Weekman). UTAH - Population increased in many succulent fields in Millard, Uintah, and Duchesne Counties. (Knowlton). NEVADA - Light on alfalfa seed fields in Orovada area. (Bechtel, Gallaway, July 20). WASHINGTON - Four fields between Pullman and Palouse averaged 48.0 to 390 per sweep. (Dailey).

SALT-MARSH CATERPILLAR (Estigmene acrea) - LOUISIANA - Very numerous on weeds, soybeans, and grasses over southern area. (Oliver).

WHEAT STEM SAWFLY (Cephus cinctus) - NORTH DAKOTA - Survey in northwestern counties completed. Most severe infestations in northern McLean, southwestern Ward, and southern Mountrail Counties where about 50 percent of the stems infested. Some fields in Williams, Divide, Burke, Renville, and Bottineau Counties also have heavy infestations. (N. D. Ins. Rept.).

RICE STINK BUG (Oebalus pugnax) - LOUISIANA - Moving into heading rice fields in 4 central parishes with 20-50 adults and nymphs per 100 sweeps. (Oliver). TEXAS - Heavy local infestation on rice in Fort Bend County. (Bowling).

ALFALFA CATERPILLAR (Colias philodice eurytheme) - SOUTH DAKOTA - Heavy flights of adults in alfalfa fields throughout east central and southeast regions. (Lofgren). NEBRASKA - From 5-7 adults per square yard in alfalfa while larvae range from 800-1200 per 100 sweeps. (Weekman).

LEAFHOPPERS - DELAWARE - Agallia constricta prevalent on alfalfa and clover generally. (Milliron, Conrad). ILLINOIS - So plentiful that serious damage to third growth alfalfa likely. (Ill. Ins. Rept.). IOWA - Damage is increasing over State. (Iowa Ins. Inf.).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Common at one place in New Castle County. (Milliron, Conrad). VIRGINIA - Three and 5 per sweep in 2 Botetourt County alfalfa fields and 2 per sweep in Floyd County. (Morris). WISCONSIN - Populations in alfalfa higher in many fields than for several years. Yellowing appearing in untreated second crop. (Wis. Ins. Sur.). MISSOURI - Continues to decline in all areas except in some fields in northwest. Sweep counts average 1 to 3 per sweep in most fields. (Kyd, Thomas). OKLAHOMA - Declining in legumes throughout State. Counts above 20-30 per 10 sweeps uncommon. (Coppock, Stiles).

BEAN LEAF BEETLE (Cerotoma trifurcata) - MISSOURI - Light numbers of adults causing noticeable but non-economic leaf injury in most soybean fields in central and east central areas; counts range 1 to 3 per linear foot of row. (Kyd, Thomas). IOWA - Leaf-feeding on soybeans in Henry County. (Iowa Ins. Inf.).

BLISTER BEETLE (Epicauta spp.) - KANSAS - One to 7 per sweep in alfalfa fields of central and south central counties. (Matthew). Destructive feeding on sugar beet leaves at one stop in Wichita County. (Gates). NEBRASKA - Population very high in alfalfa in southeast and in Republican Valley, averaging 100 per 100 sweeps. (Andersen, Weekman). MINNESOTA - Some blossom feeding in west central area. (Minn. Ins. Rept.). ALABAMA - Damage to alfalfa in Henry County. (Grimes).

CLOVER SEED CHALCID (Bruchophagus gibbus) - IDAHO - Average 2-6 per sweep in many red clover seed fields in Canyon County. (Waters).

CLOVER SEED WEEVIL (Miccotrogus picrostris) - IDAHO - Adult populations 25-30 per sweep in northern Lemhi County in clover. Clover seed weevil now appears to be distributed over entire State. (Manis).

MEXICAN BEAN BEETLE (Epilachna varivestis) - GEORGIA - Heavy infestations on soybeans in Bryan County. (Johnson).

GREEN CLOVERWORM (*Plathypena scabra*) - DELAWARE - Common on clover one location Sussex County. (Milliron, Conrad). ALABAMA - Infesting peanuts, Henry County. (Eden). MINNESOTA - Damage still being reported from south and west central areas; in some cases complete defoliation of seedling alfalfa. (Minn. Ins. Rept.). SOUTH DAKOTA - Prevalent in alfalfa throughout eastern area, up to 5 larvae per 10 sweeps. (Hantsbarger).

PAINTED-LADY (*Vanessa cardui*) - IOWA - Abundant on thistles and soybean. (Iowa Ins. Inf.). NORTH DAKOTA - Larvae common on thistles and causing almost complete defoliation in many large patches in eastern areas. Several sunflower fields in Northwood area averaged 4 to 5 larvae per plant. (N. D. Ins. Rept.). SOUTH DAKOTA - Larval infestations on soybeans in several localities in northeast region. (Lofgren). MINN. - Migration to soybeans continues. (Minn. Ins. Rept.).

SWEETCLOVER WEEVIL (*Sitona cylindricollis*) - IDAHO - Adults common on sweetclovers in southern area. Feeding damage appearing throughout. (Portman).

SIX-SPOTTED LEAFHOPPER (*Macrostelus fascifrons*) - NORTH DAKOTA - Unusually high populations during June considered responsible for transmitting aster yellows in flax in eastern areas. (N. D. Ins. Rept.).

THREE-CORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARKANSAS - Heavy in several fields of alfalfa and soybeans over the State. Girdling of stems severe in a few fields. Nymphs more numerous. Control difficult. (Barnes et al.). LOUISIANA - From 250-400 per 100 sweeps on soybeans in East Baton Rouge, West Baton Rouge and Pointe Coupee Parishes. (Oliver).

THRIPS - OKLAHOMA - Damaging peanuts in Atoka County. (Coppock, Stiles).

VELVETBEAN CATERPILLAR (*Anticarsia gemmatilis*) - LOUISIANA - Light but not threatening in soybeans in East Baton Rouge, West Baton Rouge, Pointe Coupee and Iberville Parishes. (Oliver).

VETCH BRUCHID (*Bruchus brachialis*) - OKLAHOMA - Light infestations in vetch in southern area. (Coppock, Stiles).

WEBWORMS (*Loxostege* spp.) - ARKANSAS - Heavy foliage loss in spots of some alfalfa. (Barnes et al.). MISSOURI - Infestation and damage in alfalfa increased over western half of State. From 2-12 larvae per sweep in central area. Small soybeans damaged in scattered southwest, west central and central areas. (Kyd, Thomas). OKLAHOMA - Damage continues to scattered alfalfa fields and soybeans throughout State. (Coppock). Heavy on alfalfa in northern Alfalfa County. (Owens). Soybeans heavily infested in southern Craig County. (Campbell). Unidentified webworms destroying commercial plantings of sunflowers in Stillwater area, hundreds per head. (Arbuthnot).

TARNISHED PLANT BUG (*Lygus lineolaris*) - OKLAHOMA - Fairly numerous in scattered fields of alfalfa throughout State; 20-30 nymphs and adults per 10 sweeps common. (Coppock, Stiles). NEBRASKA - Building up again in Republican Valley and southeast areas. Counts average 800 per 100 sweeps. (Weekman).

PLANT BUGS - DELAWARE - *Adelphocoris rapidus* prevalent on alfalfa in lower New Castle County and on clover generally. *Lygus* spp. generally common on clovers and alfalfa. *A. lineolatus* statewide. (Milliron, Conrad). NEBRASKA - *A. lineolatus* again building up in southeast and Republican Valley. Counts of 260-1200 per 100 sweeps. (Weekman). NEVADA - *Lygus* spp. on alfalfa seed fields in Orovada and Dayton areas. Control warranted Dayton area. (Bechtel, Gallaway, July 20). IDAHO - *Lygus* bugs becoming numerous in alfalfa seed fields in Gooding County. Control warranted. (Koester). WASHINGTON - In four alfalfa fields between Pullman and Palouse, *L. hesperus* and *L. elisus* averaged 6.2 adults and 0.1 nymph per sweep. (Dailey).

RED-NECKED PEANUTWORM (Stegasta bosqueella) - GEORGIA - Moderate to heavy on peanuts in 10 counties. (Johnson).

SAGEBRUSH DEFOLIATORS - UTAH - Leaf tiers and other caterpillars combined have caused a loss of 5-65 percent of big sage leaves generally over State this season. (Knowlton).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - RHODE ISLAND - Larval infestations of fruit high at Kingston. (Stoner). MASSACHUSETTS - Second-brood entries appearing. (Crop Pest Cont. Mess.). NEW JERSEY - Second-brood entries noted July 15 southern area, earlier than usual. May have partial third brood. (Ins.-Dis. News.). VIRGINIA - Causing more than usual trouble in scattered apple orchards. (Hill). WISCONSIN - Moderate to serious problem in several counties, adults emerging in Door County. (Wis. Ins. Surv.). MINNESOTA - Second-generation entries in La Crescent area July 21. (Minn. Ins. Rept.). UTAH - Moderately severe on apple trees at Hurricane and Santa Clara and in Juab County. (Hughes, Burtenshaw).

APPLE APHID (Aphis pomi) - VIRGINIA - Troublesome in northern area apple orchards, normally decline this period of season. (Hill). ALABAMA - Heavy on water sprouts of apples in Lee County. (Guyton). WISCONSIN - Populations high and continue to increase in Door County. (Wis. Ins. Surv.).

APPLE MAGGOT (Rhagoletis pomonella) - RHODE ISLAND - Emergence complete at Kingston. Early varieties heaviest infested. Population apparently larger than usual. (Stoner). MASSACHUSETTS - Emergence continues, migration into orchards underway. (Crop Pest Cont. Mess.). DELAWARE - Numerous one location in New Castle County on untreated fruits. (MacCreary). WISCONSIN - Adults trapped since first week of July in Door County. (Wis. Ins. Surv.). MINNESOTA - Continues to emerge; high numbers some neglected orchards in southern area. (Minn. Ins. Rept.).

ORCHARD MITES - MASSACHUSETTS - Tetranychus telarius, and sometimes Metatetranychus ulmi, are threats on apple trees. (Crop Pest Cont. Mess.). INDIANA - Degree of control varies from orchard to orchard in Vincennes area. (Hamilton). Populations active, largest of season at Orleans. Tetranychus spp. multiplying very rapidly and predominating. (Marshall). ILLINOIS - First severe infestation of T. telarius this season in orchard in Jackson County. (Chandler). COLORADO - Populations of T. telarius and Bryobia praetiosa building up in some orchards in Delta County. Control recommended. (Exp. Sta.). DELAWARE - Increased on apples and peaches. (Kelsey). WISCONSIN - M. ulmi averaged 22 per leaf on untreated apple trees in Door County. (Wis. Ins. Surv.). MINNESOTA - Generally not serious in apples. (Minn. Ins. Rept.). VIRGINIA - M. ulmi normal in northern area apple orchards, T. schoenei not a problem but expected to be early in August. (Hill). UTAH - Moderately severe on apple trees at Hurricane and Santa Clara, and in Juab County. (Hughes, Burtenshaw).

PEACH TREE BORER (Sanninoidea exitiosa) - UTAH - Moderately severe in Washington County. (Knowlton). COLORADO - First adult taken July 14 in trapped trees in Mesa County. Emergence 10 days later than past years. (Exp. Sta.).

PLUM CURCULIO (Conotrachelus nenuphar) - ILLINOIS - Jarring records from 5 trees at Mounds for 1956 and 1957 indicate than ratio will be at least 10 times greater in 1957. Weather conditions favorable for second brood and carry-over to next season. Continued fresh second-brood feeding and egg-laying on apples with initial infestation. (Chandler).

FRUIT TREE LEAF ROLLER (Archips argyrospila) - WISCONSIN - Adults numerous in Door County 75-80 trapped per night in cherry orchards. Heavier than 1956 some orchards. (Wis. Ins. Surv.).

RED-BANDED LEAF ROLLER (Argyrotaenia velutinana) - MASSACHUSETTS - Second-brood well started, may need control on early varieties. (Crop Pest Cont. Mess.). INDIANA - Degree of control needed varies from orchard to orchard in Vincennes area. (Hamilton). VIRGINIA - More difficult to control in some northern area apple orchards. (Hill). ILLINOIS - Considerable increase in fruit attacked at Carbondale. May be serious some orchards at picking time. (Chandler). WISCONSIN - Adults numerous many orchards in Door County; quite heavy on sour cherries. (Wis. Ins. Surv.). PENNSYLVANIA - Hatch expected soon in Erie County on apples. (Adams).

WESTERN CHERRY FRUIT FLY (Rhagoletis cingulata indifferens) - CALIFORNIA - Eight third instar larvae taken from pie cherries 22 miles north of Montague, Siskiyou County. (Cal. Coop. Rept.).

YELLOW-NECKED CATERPILLAR (Datana ministra) - VIRGINIA - Defoliating some young apple orchards in northern area. (Hill).

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - ARIZONA - Two severe infestations on grape at Phoenix. (Ariz. Coop. Rept.).

MEXICAN FRUIT FLY (Anastrepha ludens) - CALIFORNIA - One adult trapped in San Ysidro on July 23. This brings total to 8 trapped in area in 1957; 3 males and 5 females. Twelve adults have been trapped since the find of August 9, 1954. (Harper).

PEAR-SLUG (Caliroa cerasi) - WISCONSIN - Observed on pears, cherries and flowering crabapple in Brown, Dane and Racine Counties. (Wis. Ins. Surv.). MINNESOTA - Damage in Twin City area on cotoneaster and cherry trees. Another generation will probably cause damage in August. (Minn. Ins. Rept.).

JAPANESE BEETLE (Popillia japonica) - VIRGINIA - Heavier than for last 3-4 years in northern area orchards. (Hill).

BLACK PECAN APHID (Melanocallis caryaefoliae) - ALABAMA - Extremely scarce past 4 weeks in Lee County, now light on pecan leaves. (Guyton).

WALNUT CATERPILLAR (Datana integerrima) - OKLAHOMA - Defoliating pecans in Okemah area. (Bower).

TRUCK CROP INSECTS

BEET LEAFHOPPER (Circulifer tenellus) - IDAHO - More damage to bean fields, particularly west of Jerome and Twin Falls, than for several years. (Peay).

BEAN APHID (Aphis fabae) - DELAWARE - Numerous on lima beans some areas. (Milliron, Conrad).

APHIDS ON POTATOES - MAINE - Populations 8 times those of week ago and nearly 3 times those of same time 1956. Summer dispersal forms of Macrosiphum solanifolii and Myzus solani observed first time this season. Aphis abbreviata predominates followed by M. solanifolii, M. solani and Myzus persicae. (Shands). COLORADO - Populations developing in Weld County in certified-potato-growing areas of Rio Grande and Alamosa Counties. (Exp. Sta.). IDAHO - Populations of Myzus persicae low in potato seed fields in eastern area. (Bishop).

APHIDS - IDAHO - Extremely abundant on garden crops and ornamentals in northern area, St. Anthony area and at Twin Falls. Parasites and predators building up. (Manis, Gittins).

SIX-SPOTTED LEAFHOPPER (Macrosteles fascifrons) - COLORADO - Numbers increased. Trap collections 364 July 7 and 104 July 10 at Rocky Ford, 416 July 10 at Longmont, and 64 July 10 at Greeley. (Exp. Sta.).

YELLOW-STRIPED ARMYWORM (Prodenia ornithogalli) - ALABAMA - Damaging tomatoes, cotton and other crops in southern area. (Arant).

WIREWORMS - TEXAS - Continue to damage young peppers and tomatoes in lower Rio Grande Valley in conjunction with darling beetles and leaf miners. (Deer).

TOMATO RUSSET MITE (Vasates lycopersici) - DELAWARE - Moderately extensive infestation at Columbia. (MacCreary).

TOMATO FRUITWORM (Heliothis zea) - UTAH - Egg counts on tomatoes low in Box Elder, Davis, Weber, Salt Lake and Utah Counties. (Dorst). Moderate infestation at Santa Clara. (Hughes).

POTATO PSYLLID (Paratrioza cockerelli) - COLORADO - Continues most critical pest in eastern counties and in San Luis Valley on tomatoes and potatoes. Nymphs appearing. (Exp. Sta.). KANSAS - Light infestations on commercial tomato fields near Ulysses, Grant County. Heavy infestations in home gardens this area. (DePew). Infesting potatoes in home gardens in Wallace County, west central area. (Gates).

LEAFHOPPERS - NORTH DAKOTA - Macrosteles fascifrons generally outnumber Empoasca fabae 8 to 1 in potato fields. Purple top higher than any time during past 10 years. (N.D.Ins. Rept.).

HORNWORMS - RHODE ISLAND - Larvae widespread on tomatoes, damaging particularly at West Kingston and Newport. (Stoner). KANSAS - Controlled in commercial plantings of tomatoes in Wichita County. (Gates). UTAH - Spotted local damage to tomatoes and potatoes. (Knowlton).

EUROPEAN CORN BORER (Pyrausta nubilalis) - DELAWARE - Light to moderate damage to potatoes in Kent County. (Milliron, Conrad).

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - DELAWARE - Heavy on potatoes some places, light on tomatoes in Sussex County. (Milliron, Conrad). WISCONSIN - Moderate numbers in several counties, heavy some Green Lake County potatoes. (Wis.Ins.Surv.).

GRASSHOPPERS - TEXAS - Damaged a few fields of pepper near Mission. (Deer).

BLISTER BEETLES - ALABAMA - Epicauta sp. damaging tomatoes in Henry County. (Grimes). TENNESSEE - Considerable damage to truck crops in western area. (Locke). DELAWARE - Destructive to tomatoes and potatoes one place New Castle County. (Milliron, Conrad).

SQUASH VINE BORER (Melittia cucurbitae) - RHODE ISLAND - Activity increasing, as many as 10 larvae per stem in summer squash at West Kingston, averaging 4. (Stoner). WISCONSIN - One heavy infestation in Dane County. (Wis. Ins. Surv.).

SQUASH BUGS - RHODE ISLAND - Populations of Anasa tristis greatly increasing, particularly at West Kingston and Tuckerton. (Stoner). IOWA - All stages abundant on Hubbard squash in all areas. (Iowa Ins.Inf.). WISCONSIN - A heavy infestation in Jackson County. (Wis. Ins. Surv.). UTAH - A. tristis damage moderate in Weber, Davis, Salt Lake and Cache Counties. Abundant in Washington County. (Knowlton, Hughes).

MELON APHID (Aphis gossypii) - UTAH - Moderately severe on cantaloups in Washington County. (Knowlton, Hughes).

ONION MAGGOT (Hylemya antiqua) - WISCONSIN - Damage appears to be widespread and serious some areas. (Wis. Ins. Surv.). IDAHO - Third-generation adults emerging in southwestern area. Pupation of second generation about 60 percent complete; but second-generation adults present and egg-laying continuing. (Scott). UTAH - Some damage in Salt Lake, Box Elder, Cache and Sanpete Counties. (Knowlton).

ONION THRIPS (Thrips tabaci) - COLORADO - Very high in commercial plantings of onions in Pueblo and Bent Counties. Control recommended. (Exp. Sta.). KANSAS - On commercial plantings of onions in Wichita County. (Gates).

RASPBERRY INSECTS - WISCONSIN - Raspberry cane borer (Oberea bimaculata) and raspberry sawfly (Monophadnoides geniculatus) populations much lighter than in 1956 in northwestern counties. (Wis. Ins. Surv.).

SPIDER MITES - DELAWARE - Tetranychus telarius and T. atlanticus damaging to sweet-potatoes and lima beans in Sussex County. (Milliron, Conrad). WISCONSIN - One planting of strawberries ruined by Steneotarsonemus pallidus. (Wis. Ins. Surv.). WASHINGTON - T. telarius caused moderate to severe damage to spearmint at Rosa. Built up just prior to harvest. Populations of S. pallidus unusually low on strawberries in Snohomish, Skagit and Whatcom Counties. (Breakey, Eide).

STRAWBERRY LEAF ROLLERS - TENNESSEE - Appearing generally over State. (Mullett).

CABBAGE APHIDS - RHODE ISLAND - Brevicoryne brassicae heavy on crucifers generally. (Stoner). MASSACHUSETTS - Becoming more numerous. (Crop Pest Cont. Mess.).

CABBAGEWORMS - RHODE ISLAND - Infestations of Pieris rapae heavy on neglected crucifers. (Stoner). MASSACHUSETTS - Present and may become serious if high temperature continues. (Crop Pest Cont. Mess.). NEW JERSEY - Looper eggs numerous on broccoli in Cumberland County. (Ins.-Dis. News.). WISCONSIN - Infestations of Trichoplusia ni and P. rapae medium to heavy in several counties. (Wis. Ins. Surv.).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - IDAHO - Adults emerging in moderate numbers at Rupert but no larvae found feeding on beans. (Peay).

PEA APHID (Macrosiphum pisi) - WISCONSIN - Populations increased many unharvested late pea fields; treatments being applied. (Wis. Ins. Surv.). WASHINGTON - Heaviest on peas in Palouse area since 1954. Nearly all fields received treatment. Adults averaged 76.3 per sweep in 4 fields between Pullman and Palouse. (Dailey).

PEA WEEVIL (Bruchus pisorum) - WASHINGTON - Decreased on peas in Palouse area; little treatment. (Telford).

MEXICAN BEAN BEETLE (Epilachna varivestis) - RHODE ISLAND - Extremely heavy on neglected beans, complete defoliation. Pupation started at West Kingston. (Stoner). COLORADO - Damaging canning beans, control applied. Larvae hatching in Montrose County, control on early plantings advised. (Exp. Sta.). TENNESSEE - Heavier than usual in western area. (Locke). ALABAMA - Unusually active in Lee County. (Arant).

LOOPERS - WASHINGTON - Larvae of Autographa californica reported causing difficulty in packing plants in shelled peas from Walla Walla area in CEIR 7 (29):576. Adults indicate that Anagrapha falcifera was predominant species with fewer larvae of A. californica. (Cook).

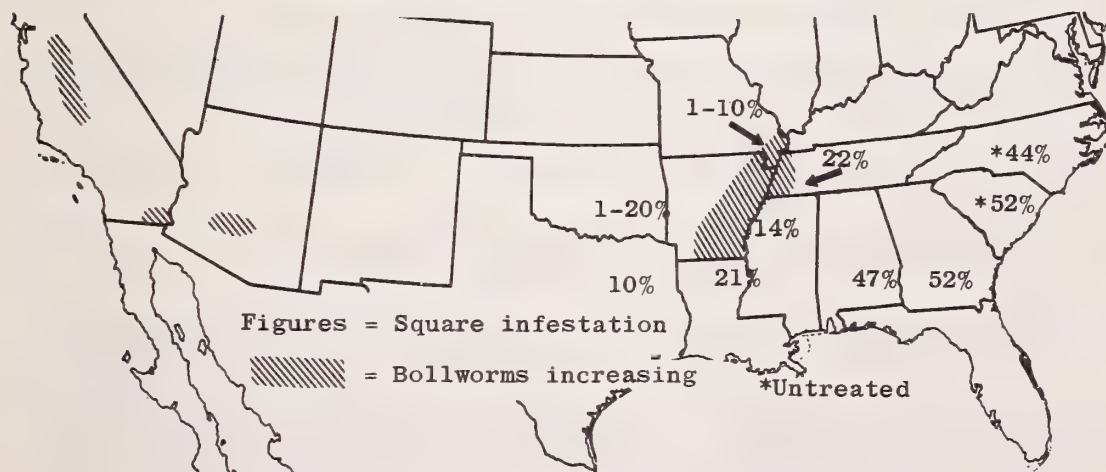
A LEAF ROLLER (Platynota stultana) - ARIZONA - Serious infestation on watermelons at Cashion and Buckeye, Maricopa County. Some not marketable. (Ariz. Coop. Rept.).

COTTON INSECTS

BOLL WEEVIL (*Anthonomus grandis*) - NORTH CAROLINA - Statewide average square infestation in 140 treated fields was 18.6 percent and in untreated fields 43.8 percent. (Jones et al.). Serious threat in many fields. (Ins. Notes). **SOUTH CAROLINA** - Reports from 40 counties indicate infestation in treated fields 19 percent, untreated fields 52 percent. This compares with 16 and 49 for previous week. Situation continues serious. (Cott. Lett.). Thirteen treated fields in Florence County had 40 percent infestation and 45 treated fields in Darlington County averaged 19 percent compared with 27 percent previous week. (Walker et al.). **TENNESSEE** - Slight increase in most fields, heaviest in upland fields. Average infestation was 22 percent compared with 19 last week and 35 at this time last year. Continuing rains still favor buildup. (Locke). **GEORGIA** - Counts in 27 fields in 13 southern counties showed 52 percent punctured squares. Fourteen additional fields in Sumter, Lee, Tift, Coffee and Emanuel Counties were heavily infested though no counts made due to scarcity of squares. (Johnson). **ALABAMA** - Increasing. Twenty-four fields in 6 south and southeastern counties had 47.5 percent infestation. (Grimes). **MISSISSIPPI** - Average of 13.6 percent infestation in delta counties. Infestations remain spotty but becoming more widespread. (Merk1 et al.). **LOUISIANA** - Average infestation in 104 fields in Madison Parish was 21 percent. (Smith et al.). Twenty-two fields examined in 10 parishes had 4-90 percent infestation. (Oliver). **ARKANSAS** - Increasing in many fields over State. Conditions for development more favorable. Twenty to 30 percent increase in infestations in several fields in southern half of State. Still light in young cotton. Of 4017 fields inspected, 78 percent infested compared with 67 last week and 85 a year ago. (Barnes et al.). **TEXAS** - Continues low in McLennan and Falls Counties, 9.6 percent infestation in 38 fields. (Parenchia et al.). Infestations light to medium in various areas, July 19. (Turney, Martin). Were near normal in lower valley this year. (Deer). **OKLAHOMA** - Very low in southwestern Oklahoma; occasional puncture. (Bryan). Reported only from eastern and southeastern counties, July 20; from 1-20 percent infestation. (Flora). **MISSOURI** - Four percent of 545 fields had 1-10 percent of squares infested. (Kydt, Thomas).

BOLLWORMS (*Heliothis* spp. et al.). - SOUTH CAROLINA - Continues low in Florence area. (Walker et al.). **NORTH CAROLINA** - Not increasing. (Cott. News Lett.). **TENNESSEE** - Still increasing. Infestations higher (3 larvae per 100 terminals) in areas treated for boll weevil. (Locke). **GEORGIA** - Moderate on cotton in Candler and Emanuel Counties. Heavy in Sumter, Tift, Coffee and Johnson Counties.

Boll Weevil and Bollworm Highlights as of July 26



Twenty-seven eggs per 100 terminals in Candler County. (Johnson). ALABAMA - Generally lighter than previous week. (Grimes). MISSISSIPPI - Light egg deposition in some fields in delta counties, 2.6 eggs per 100 terminals. Conditions favorable for buildup. Medium moth flight indicated by light traps. (Merkl et al.). LOUISIANA - Damage generally light in Madison Parish. (Smith et al.). No fields examined over State had heavy infestations. Marked increase in moths at light trap at Shreveport. (Oliver). ARKANSAS - Increased some fields. Natural control effective in most untreated fields. (Barnes et al.). TEXAS - Heavy egg deposition continues in more succulent fields in McLennan and Falls Counties, 40.8 eggs and 3.3 per 100 terminals in 50 fields. (Parenchia et al.). Infestations medium in coastal bend and upper coastal areas; light to medium in south central, east, central, west central areas; and light in several other areas. (Turney, Martin, July 19). OKLAHOMA - Generally light in southwestern areas but one field had 10-15 percent of bolls damaged. Egg deposition generally light. (Coppock, Stiles). MISSOURI - Rapid buildup, 24 percent of 545 fields infested with 1-10 per 100 terminals. Predators keeping most infestations under control. (Kyd, Thomas). ARIZONA - Generally increased; 1-8 per 100 plants in Buckeye area. About 700 acres treated in Pinal County. (Ariz. Coop. Rept.). CALIFORNIA - Increasing in San Joaquin Valley and Imperial County although still below economic levels. Predators keeping populations down in Imperial and Kern Counties. (Cal. Cott. Lett.). NEVADA - Spotted and still low in Pahrump Valley. (Lauderdale).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Heavy in some sections of lower Rio Grande Valley. Light in coastal bend and central areas. (Turney, Martin, July 19). The 1957 season notable for surprisingly heavy infestations in local areas of lower valley. (Deer). CALIFORNIA - Bloom inspection completed in Kern, Merced and Madera Counties. No pink bollworm found. (Cal. Coop. Rept.).

CABBAGE LOOPER (Trichoplusia ni) - GEORGIA - Light on cotton in 5 counties, moderate in Washington County and heavy in Tift County. (Johnson). ALABAMA - Defoliating cotton in Geneva County. (Grimes). Damage also in several central counties. (Arant). OKLAHOMA - One to 5 per plant in Greer and Caddo Counties. (Bryan). Light widespread in most southwestern counties. (Coppock, Stiles). ARIZONA - Heavy damage on 400 acres in Pinal County. Two to 3 per 100 sweeps in Litchfield Park area, Maricopa County. (Ariz. Coop. Rept.).

COTTON LEAFWORM (Alabama argillacea) - LOUISIANA - Moth activity increasing over western half of State. Larvae found as far north as Hico, Lincoln Parish. (Oliver). ARKANSAS - Some light infestations. (Barnes et al.). TEXAS - Light to heavy in coastal bend, southwest, upper coastal and south central areas and light in several other areas. (Turney, Martin, July 19). OKLAHOMA - Activity beginning in southern and southwestern fields. (Coppock, Stiles).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Light in western Maricopa County. Egg masses indicate high potential population in Pinal County. (Ariz. Coop. Rept.).

SOUTHERN ARMYWORM (Prodenia eridania) - MISSISSIPPI - Feeding on cotton and other plants in Jones County. (Pepper).

BROWN COTTON LEAFWORM (Acontia dacia) - LOUISIANA - Moths very active in cotton in Natchitoches and Red River Parishes. No larvae. (Oliver).

APHIDS - NORTH CAROLINA - Seven acres 75 percent infested with Aphis gossypii in Bertie County. (Simmons, Farrier). SOUTH CAROLINA - Increasing in upper Coastal Plains and in sandhill counties. (Cott. Lett.). GEORGIA - Light in 2 counties, moderate in 9 and heavy in 6. (Johnson). ALABAMA - A. gossypii medium to heavy in south and southeast. (Grimes). Reports from several areas indicate general buildup. (Arant). OKLAHOMA - Light to heavy in many fields in southern and southwestern areas. Spraying underway (Coppock, et al.).

SPIDER MITES - SOUTH CAROLINA - Found in all sections. (Cott. Lett.). GEORGIA - Light to moderate in all fields examined. (Johnson). ALABAMA - Light in Geneva and Escambia Counties. (Grimes). MISSOURI - Marginal infestations in 5 percent of 545 fields. (Kyd, Thomas). ARIZONA - Heavy on 160 acres of cotton in Maricopa County. (Ariz. Coop. Rept.).

PLANT BUGS - TENNESSEE - Some light damage in rank cotton. (Locke). OKLAHOMA - Reported from several southwestern counties, as high as 30-35 per 100 terminals. (Flora, July 20). TEXAS - In lower Rio Grande Valley, 1957 season notable for large numbers of fleahoppers which caused serious damage. (Deer). MISSOURI - Fleahoppers in 95 percent of 545 fields, 0-34 nymphs and adults per 100 terminals. (Kyd, Thomas). ARIZONA - Lygus spp. built up rapidly on cotton in all areas. Economic levels in most of Maricopa County and many fields treated. Economic populations also in Pinal and Pima Counties. Fleahoppers declined. (Ariz. Coop. Rept.). CALIFORNIA - Lygus bugs increasing in San Joaquin Valley and Imperial County with heavy population near recently-cut alfalfa in Imperial County. Six to 30 adults and 6-8 nymphs per 50 sweeps in Fresno County. (Cal. Cott. Lett.).

COTTON LEAF PERFORATOR (Bucculatrix thurberiella) - ARIZONA - Light in Maricopa County. Increasing in Pinal County, some mild defoliation. (Ariz. Coop. Rept.).

THRIPS - ARIZONA - High in most cotton fields from Maricopa to Pima County. Some damage in blossoms and squares. (Ariz. Coop. Rept.).

GRASSHOPPERS - OKLAHOMA - Scattered marginal damage to cotton in Washita and Roger Mills Counties by lubber grasshoppers. (Flora, July 20).

TOBACCO INSECTS

HORNWORMS (Protoparce spp.) - MARYLAND - Moths numerous at light traps, few newly-hatched larvae July 25. (U. Md., Ent. Dept.). VIRGINIA - Adults increased approximately 9-12 times during week in Pittsylvania County. (Dominick).

GREEN PEACH APHID (Myzus persicae) - MARYLAND - Heavy on older tobacco in Calvert and Prince Georges Counties. Aerial spraying started. (U. Md., Ent. Dept.).

TOBACCO FLEA BEETLE (Epitrix hirtipennis) - VIRGINIA - Increasing on tobacco some Pittsylvania County fields. Counts from 10-20 per plant. (Dominick).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

LARCH SAWFLY (Pristiphora erichsonii) - WISCONSIN - Heavy to complete defoliation apparent most larch stands northwestern area, pupation observed July 16. (Wis. Ins. Surv.). PENNSYLVANIA - Heavy to complete defoliation on Japanese larch in Clinton County. (Drooz).

SAWFLIES - WISCONSIN - Neodiprion lecontei feeding in shade of hardwoods in Taylor County and scattered in Sawyer and Douglas Counties. Pikonema alaskensis defoliating ornamental spruce in Price and Douglas Counties. (Wis. Ins. Surv.).

WHITE-PINE WEEVIL (Pissodes strobi) - WISCONSIN - Populations were quite heavy in northern area on pine, damaged terminals now apparent. Some pupation and adult emergence. (Wis. Ins. Surv.).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - WISCONSIN - Transformation to adult stage nearly complete in northwestern counties. About 4000 acres in northeastern areas aerially treated. (Wis. Ins. Surv.).

APHIDS - PENNSYLVANIA - Cinara watsonii still present in plantations on Scotch pine in Indiana County. (Udine).

BUDWORMS - MINNESOTA - Choristoneura pinus in small stands in Superior National Forest north of Virginia and Trout Lake and south of Warroad. First defoliation these areas recent years. Defoliation north of Chisholm. C. fumiferana defoliation increased in Superior National Forest in areas with heaviest defoliation in 1956. Area of heavy defoliation expanded in easterly direction. Egg mass survey began July 23. (Minn. Ins. Rept.).

PINE TIP MOTHS - TENNESSEE - Causing considerable injury to young pines in western area. (Locke).

BAGWORM (Thyridopteryx ephemeraeformis) - NEW JERSEY - Severe damage to spruce some areas. (Ins.-Dis. News.). DELAWARE - Damage on sycamore increased various locations in Kent and Sussex Counties. (Milliron, Conrad). NEBRASKA - Damaging evergreens in Lincoln area, as many as 7 inquiries per hour. (Andersen).

KANSAS - Actively feeding at Wellington, Sumner County and reported several northeastern counties. (Matthew).

TENT CATERPILLARS - WASHINGTON - Few focal points of infestations of Malacosoma disstria on willow and M. pluviale on alder between Olympia and Everett. Heavy parasitism of cocoons by Tachinomyia similis and Rileymyia americana with larvae of Sarcophaga houghi and S. aldrichi numerous. Egg masses frequent on hosts with parasites active. Apparently tent caterpillars slowly recovering following sharp reduction in 1955 population. (Dailey).

YELLOW-NECKED CATERPILLAR (Datana ministra) - ILLINOIS - Defoliating many deciduous trees in central and western areas. (Ill. Ins. Rept.).

WALNUT CATERPILLAR (Datana integerrima) - MINNESOTA - Defoliation reported in Taylors Falls area. (Minn. Ins. Rept.).

MOURNING-CLOAK BUTTERFLY (Nymphalis antiopa) - IDAHO - Outbreak occurring in Lewiston area on willow; a control initiated. (Kambitsch).

A MOTH (Calocalpe undulata) - WISCONSIN - Larvae webbed wild cherry leaves many areas. Heavy populations some areas Columbia County; most damage past. Larvae 3-5 instar July 14. (Wis. Ins. Surv.).

CATALPA SPHINX (Ceratonia catalpae) - WEST VIRGINIA - Feeding heavy on catalpa in Hardy County. (W. Va. Ins. Surv.).

FALL WEBWORM (Hyphantria cunea) - RHODE ISLAND - Early and middle instars wide-spread on wild cherry and apple, on elm and maple in areas. (Stoner, Wallace). DELAWARE - Common on hickory some places in Sussex County. (Milliron, Conrad). WASHINGTON - Very light population from Olympia to Everett. (Dailey).

POPLAR VAGABOND APHID (Mordvilkoja vagabunda) - SOUTH DAKOTA - Heavy infestation on cottonwood in Camp Cook area of Harding County. (Spawn).

MAPLE BLADDER-GALL MITE (Vasates quadripedes) - IDAHO - Moderate infestation developed on maple trees in Lewiston area. (Kambitsch).

HACKBERRY NIPPLE GALL (Pachypsylla celtidis-mamma) - RHODE ISLAND - Galls particularly numerous on hackberry at Newport and Kingston. (Stoner).

WALKINGSTICK (Diaperomera femorata) - WISCONSIN - Numerous in eastern Ashland County. (Wis. Ins. Surv.).

LOCUST LEAF MINER (Chalepus dorsalis) - PENNSYLVANIA - Heavy emergence in Adams and York Counties. (Drooz).

ELM LEAF BEETLE (Galerucella xanthomelaena) - IDAHO - Entirely skeletonized elm foliage in Bowmont area of Canyon County. Pupation now general. (Waters).

SYCAMORE LACEBUG (Corythucha ciliata) - NEW JERSEY - Abundant. (Ins.-Dis. News.).

OAK WEEVILS - WEST VIRGINIA - Cyrtepidistomus castaneus attacking oak in Boone County and Pandeleteius hiliaris in Boone and Logan Counties. (W. Va. Ins. Surv.).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - WISCONSIN - Summer emergence begun. Found for first time on native elm in Crawford County. As of July 25, 141 trees diagnosed as having Dutch elm disease. To July 26, 1957, disease found in 12 communities in 6 counties; Jefferson County only new county. (Wis. Ins. Surv.).

ROSE CHAFER (Macrodactylus subspinosus) - WISCONSIN - Populations generally lighter than 1956 in northwestern counties, one heavy infestation in Manitowoc County. (Wis. Ins. Surv.).

JAPANESE BEETLE (Popillia japonica) - INDIANA - Collected on rose bush in East Chicago July 22. (Osmun, Campau). WISCONSIN - Two adults trapped to July 26, one each in Milwaukee and Racine Counties. About 510 traps placed in scattered southeastern locations. (Wis. Ins. Rept.).

SPIDER MITES - OKLAHOMA - Destroying privet shrubbery in central area. (Stiles).

A MEALYBUG (Pseudococcus juniperi) - KANSAS - Abundant on juniper in localized areas in Sedgwick, Sumner, Kingman and Barton Counties. City spraying in Wellington, Sumner County. (Calkins).

A SCALE (Asterolecanium arabidis) - CALIFORNIA - Heavy on pittosporum at Palo Alto, Santa Clara County. (Cal. Coop. Rept.).

AZALEA LEAF MINER (Gracilaria azaleella) - FLORIDA - Larvae averaged 12 per plant on 10,000 inspected on azalea at South Jacksonville, Duval County. (King, June 24).

ASIATIC GARDEN BEETLE (Autoserica castanea) - WEST VIRGINIA - Heavy on chrysanthemums in Kanawha County. (W. Va. Ins. Surv.).

INSECTS AFFECTING MAN AND ANIMALS

SCREW-WORM (Callitroga hominivorax) - GEORGIA - Heavy infestations in Spalding County on castrated calves. (Minter, Dupree). ALABAMA - Increased activity in Houston, Henry, Covington and Geneva Counties. (Grimes). OKLAHOMA - Number of infestations in Custer County. (Bower).

MOSQUITOES - ALABAMA - Species prevalent in Lee County are Culex territans, Aedes triseriatus, A. canadensis canadensis, Anopheles punctipennis and Toxorhynchites rutilus. (Bargren). ARIZONA - Increasing some areas Pinal County. Treated at Casa Grande. (Ariz. Coop. Rept.). UTAH - Severe several parts of Sanpete County. (Funk). Troublesome many localities including Rich and Cache Counties. (Knowlton).

HOUSE FLIES - UTAH - Troublesome to livestock in Washington County. Extensive community control programs in Sanpete County, Fayette and Ephraim. (Knowlton).

HORN FLY (Siphona irritans) - MARYLAND - Abundant on cattle in southern areas. (U. Md., Ent. Dept.). OKLAHOMA - Populations up slightly in Stillwater area. (Howell). UTAH - Troublesome to livestock in several counties. (Knowlton).

TABANIDS - OKLAHOMA - Tabanus atratus and T. abactor average 10-20 per animal in central and eastern areas. (Howell). IOWA - Horse flies worse than usual. (Iowa Ins. Inf.). UTAH - Numerous on livestock in several areas. (Knowlton).

STABLE FLY (Stomoxys calcitrans) - OKLAHOMA - Populations lower in Stillwater area. (Howell).

COCKROACHES - VIRGINIA - More than usual Supella supellectilium at Richmond. (Willey). DELAWARE - S. supellectilium troublesome in business establishment, New Castle County. (Milliron, Conrad). UTAH - Blattella germanica and Blatta orientalis serious problems in Washington County. (Knowlton).

BLACK FLIES - TEXAS - Heavy feeding on cattle in Bell County. (Decker).

CHICKEN MITE (Dermanyssus gallinae) - NORTH CAROLINA - Severe infestation large flock in Rowan County. (Pate, Farrier).

FLEAS - TENNESSEE - Serious in and around homes all areas in State. (Mullett). ALABAMA - Abundant several counties of State. (Arant).

TICKS - CONNECTICUT - Single female specimen of Amblyomma (probably americana) taken from back of small boy at Torrington. (Johnson). TENNESSEE - Heavier than usual western area. (Locke). WISCONSIN - Unusually high populations of Dermacentor variabilis for time of year. (Wis. Ins. Surv.).

BENEFICIAL INSECTS

BEES - NEVADA - Native bee populations moderate to heavy, pollinating seed fields in Orovada area. (Bechtel, Gallaway, July 20).

BIG-EYED BUGS (Geocoris sp.) - IDAHO - Abundant many red clover fields in Canyon County. Average 2-3 per sweep many fields, with larger population on ground. (Waters).

MISCELLANEOUS INSECTS

EUROPEAN EARWIG (Forficula auricularia) - NEVADA - Populations increasing to economic level, numerous calls on control in western area. (Gallaway, July 20).

FALSE CHINCH BUG (Nysius sp.) - ARIZONA - Invaded homes locally at Tucson, caused much annoyance. (Ariz. Coop. Rept.).

FIELD CRICKET (Acheta assimilis) - ARIZONA - Nuisance most homes in Pinal County. (Ariz. Coop. Rept.).

GRAIN MITE (Acarus siro) - IDAHO - Extremely heavy in potato storage in Bingham County. Mites entered storage area from straw layer used as roof cover. (Portman).

SOUTHERN FIRE ANT (Solenopsis xyloni) - TENNESSEE - Infesting several properties in Memphis. (Locke).

SPRINGTAILS - CONNECTICUT - Migrating into homes from plant beds. (Johnson).

CORRECTIONS

CEIR 7(29):570 under SPOTTED ALFALFA APHID - VIRGINIA - should read "Averaged 500 plus, 25, 100 and 30 per sweep in 4 Princess Anne County alfalfa fields".

CEIR 7(28):553 under PLUM CURCULIO - GEORGIA - should read "New first-generation females depositing second-generation eggs June 21 at Fort Valley".

LIGHT TRAP COLLECTIONS

	Pseud. unip.	Agrot. yps.	Prod. orn.	Perid. marg.	Laphyg. frug.	Heliothis zea vires.	Protoparce sexta quin.	
ALABAMA (Counties)								
Baldwin 7/18,19,25	3		15	2		82	9	16
DeKalb 7/20,23,25						11		78
Lee 7/25	19		71	1		202	14	9
ARKANSAS								
Hope 7/18-24		7		1		12		
Stuttgart 7/18-24						6		
*Morrillton 7/18-24	2	17		4		3		
Varner 7/17-23	6	7				5		
Fayetteville 7/20-26	20	25		3		120		
Osceola 7/18-23						5		
COLORADO								
Rocky Ford 7/10	84							
GEORGIA (Counties)								
Spalding 7/19-25	69	19	210	15	15	610	11	37
Tift 7/15,17,19	40	2	51		95	439	45	34
KANSAS								
Hays 7/19-23		48	60			20		
Manhattan 7/21-26	76	85	896			164		5
Wathena 7/17-23	14	28	30			24		13
ILLINOIS								
Urbana 7/18-24	38	23	30	20		5		7
INDIANA (Counties)								
Orange 7/17-22	75	27	32	2				20
Tippecanoe 7/18-25	351	125	76	36		5		4
LOUISIANA								
Baton Rouge 7/20-25	33		120		368	12	9	60
Curtis 7/17-24	156	57	275		625	645		41
MISSOURI								
Columbia 7/22-26		2	14		101	1		4
Sikeston 7/24-25		31			18	52		4
MISSISSIPPI								
Grenada 7/19-24	9		12			10		
Senatobia 7/20-25		2	3					
State College 7/20-26	44	3	96		5	27	2	
*Stoneville 7/19-25	113	140	293	2	98	171	13	23
NEBRASKA								
Lincoln 7/11-17	58	71		288		3		6
Lancaster 7/15-20	354	7						
NORTH CAROLINA (Counties)								
Duplin 7/25	2	3	45			34		18
Johnson 7/25	4		6			14		1
MARYLAND (Counties)								
Wicomico 7/16-22	12	8		5	3	16		71
Montgomery 7/19-25	6	22		7	2	11		7
SOUTH CAROLINA (Counties)								
Florence 7/20-26	135	27	322	25	57	2464	53	84
Charleston 7/22-28	4		76	4	34	75	2	3
Oconee 7/20-26	37	6	125	1	3	37		49
SOUTH DAKOTA								
Brookings 7/25	11			41				
TENNESSEE (Counties)								
Lauderdale 7/16-22	48	8	152			8		1
Madison	56	35	105	4		2		17
Lawrence	12	8	28			4		27
Maury	12	4	128	4				34
Robertson	104	20	72	4				23
Knox	120	26	638	30		10		6
Greene	208	20	168	4		8		34

*Two traps Morrillton; four traps Stoneville.

(Continued)

LIGHT TRAP COLLECTIONS

(Continued)

	Pseud. unip.	Agrot. yps.	Prod. orn.	Perid. marg.	Laphyg. frug.	Heliothis zea vires.	Protoparce sexta quin.
TENNESSEE (Cont'd.)							
Blount	24		126			4	19 9
Monroe	3	3	8				1 4
Johnson	246	154	82	66		6	8
TEXAS							
Brownsville 7/14-20	16	225	336		920	353 48	38 1
Waco 7/20-26	43		156	38		1430	
VIRGINIA (County)							
Pittsylvania 7/12-20							269 510

Additional Collections

Alabama argillacea: TEXAS - Brownsville (7/14-20)- 32,904; Waco (7/20-26)--373;
LOUISIANA - Baton Rouge (7/20-25)--35; Curtis (7/17-24)--74.

ADDITIONAL NOTES

NEW YORK - May have heavy second brood of RED-BANDED LEAF ROLLERS in Rockland County. CODLING MOTH second brood serious in some orchards in Columbia County, numerous in light traps in Rockland County. APPLE MAGGOT flies continue to emerge in substantial numbers in Wayne County. EUROPEAN CORN BORER egg laying for second brood will be decidedly earlier this year in Hudson Valley. CORN EARWORM present in all stages in this area. Infestation of ears 25-30 percent. CABBAGEWORMS and CABBAGE LOOPERS considerable problem on cabbage and cauliflower in Rockland County. APHIDS in large numbers on potatoes in Erie County, earlier than usual. CABBAGE APHIDS building up in many crucifer fields over State. (N. Y. Wkly. Lett.).

OHIO - Second-brood injuries of CODLING MOTH in northern area. RED-BANDED LEAF ROLLER infestations variable, mostly light. Severe but controllable infestations of EUROPEAN RED MITE. POTATO LEAFHOPPER causing yellowing and stunting in central area. Many reports of JAPANESE BEETLE damage in eastern counties. CORN SAP BEETLE damage commonly reported. (C. R. Neiswander et al.).

